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NOTE

An Arabian Troubleshooting Guide is included as part of this Schematic Package Supplement. The Arabian Troubleshooting Guide contains Atari CAT Box* troubleshooting procedures and signal name descriptions.



Schematic Package Supplement to

ARABIANTM

Operators Manual

Includes
Troubleshooting Guide

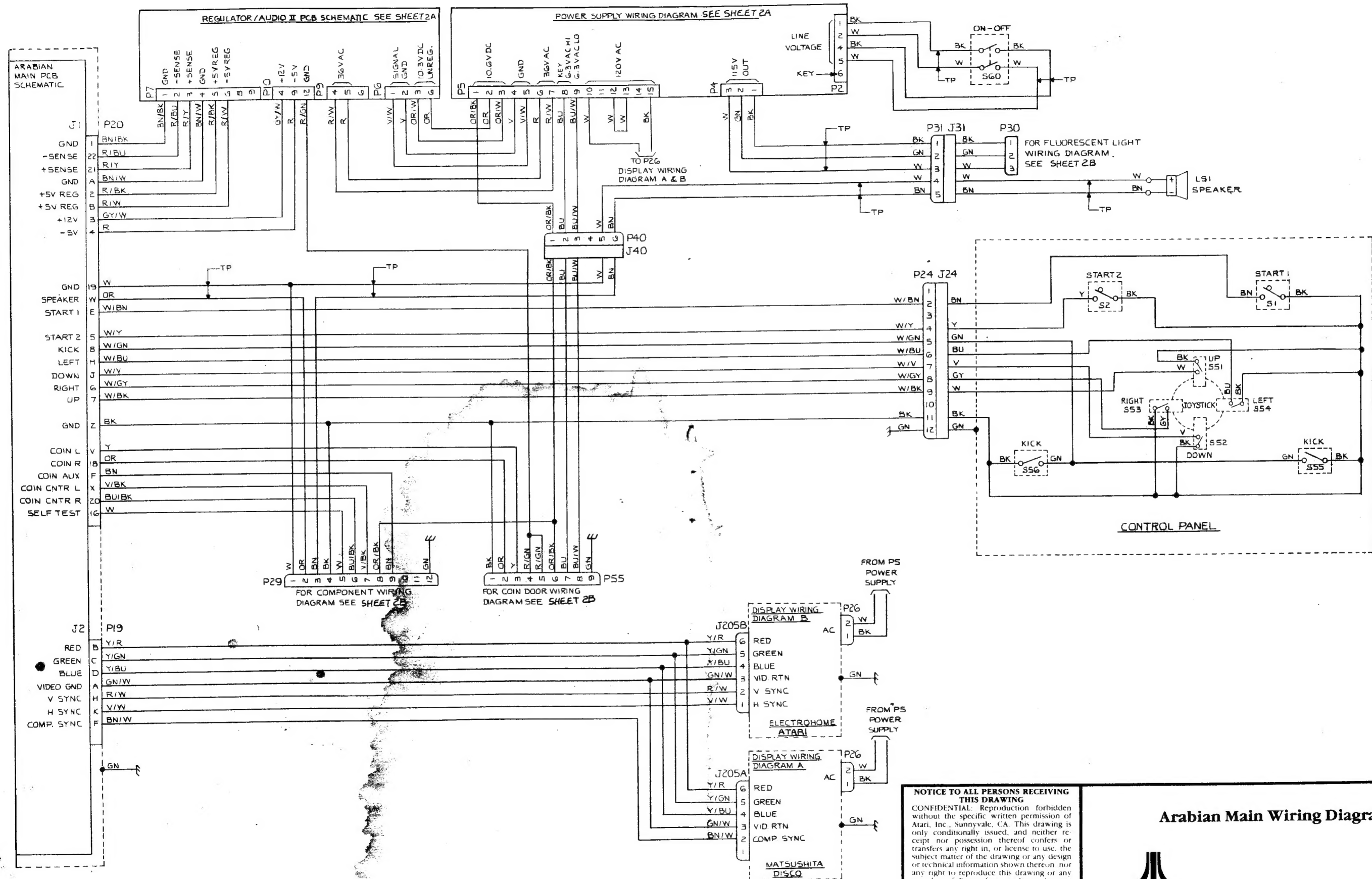
NOTE
Remove this staple to separate
the schematic diagrams from
the Troubleshooting Guide.

*Manufactured under license from Sun Electronics Corporation

4M

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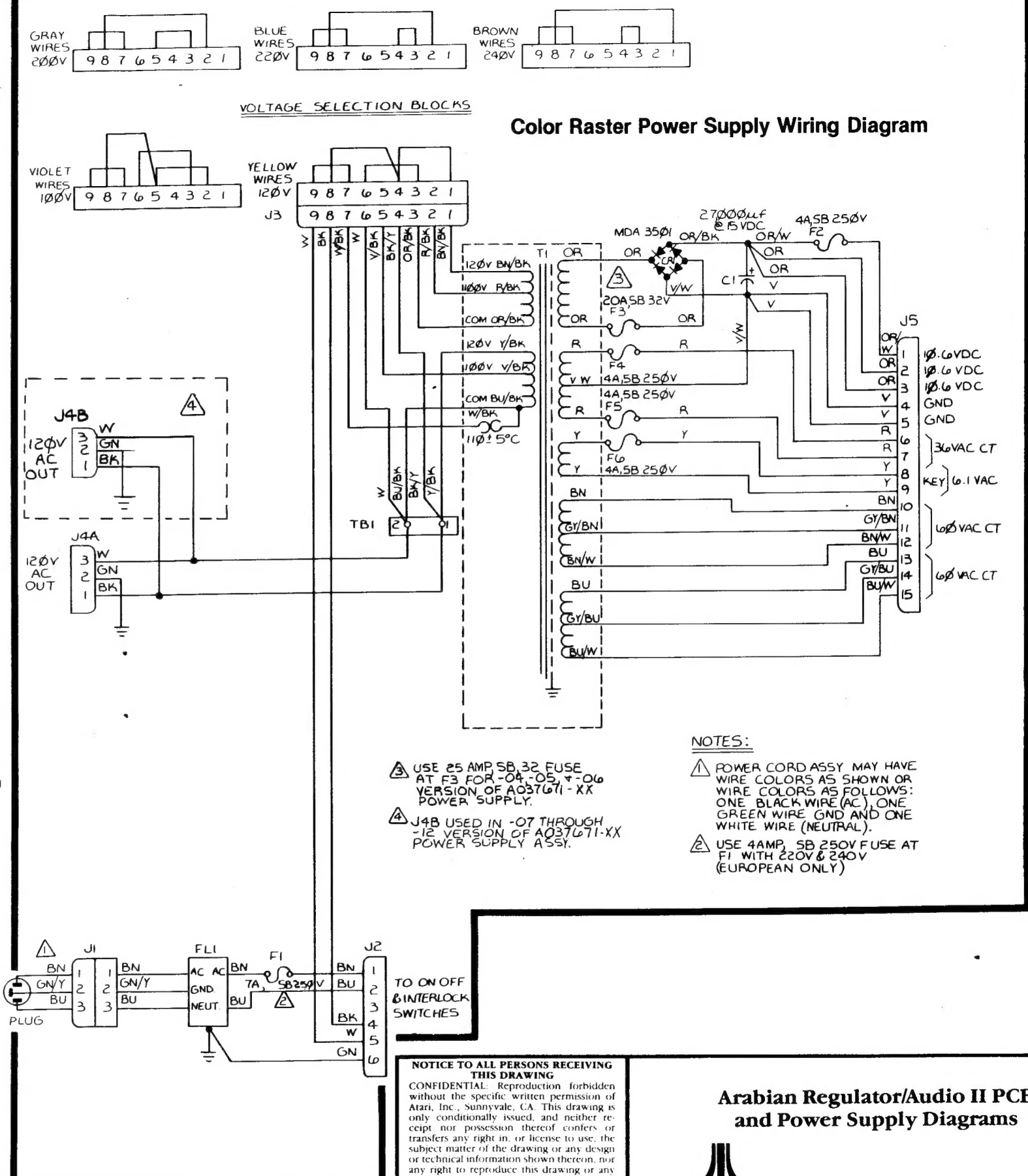
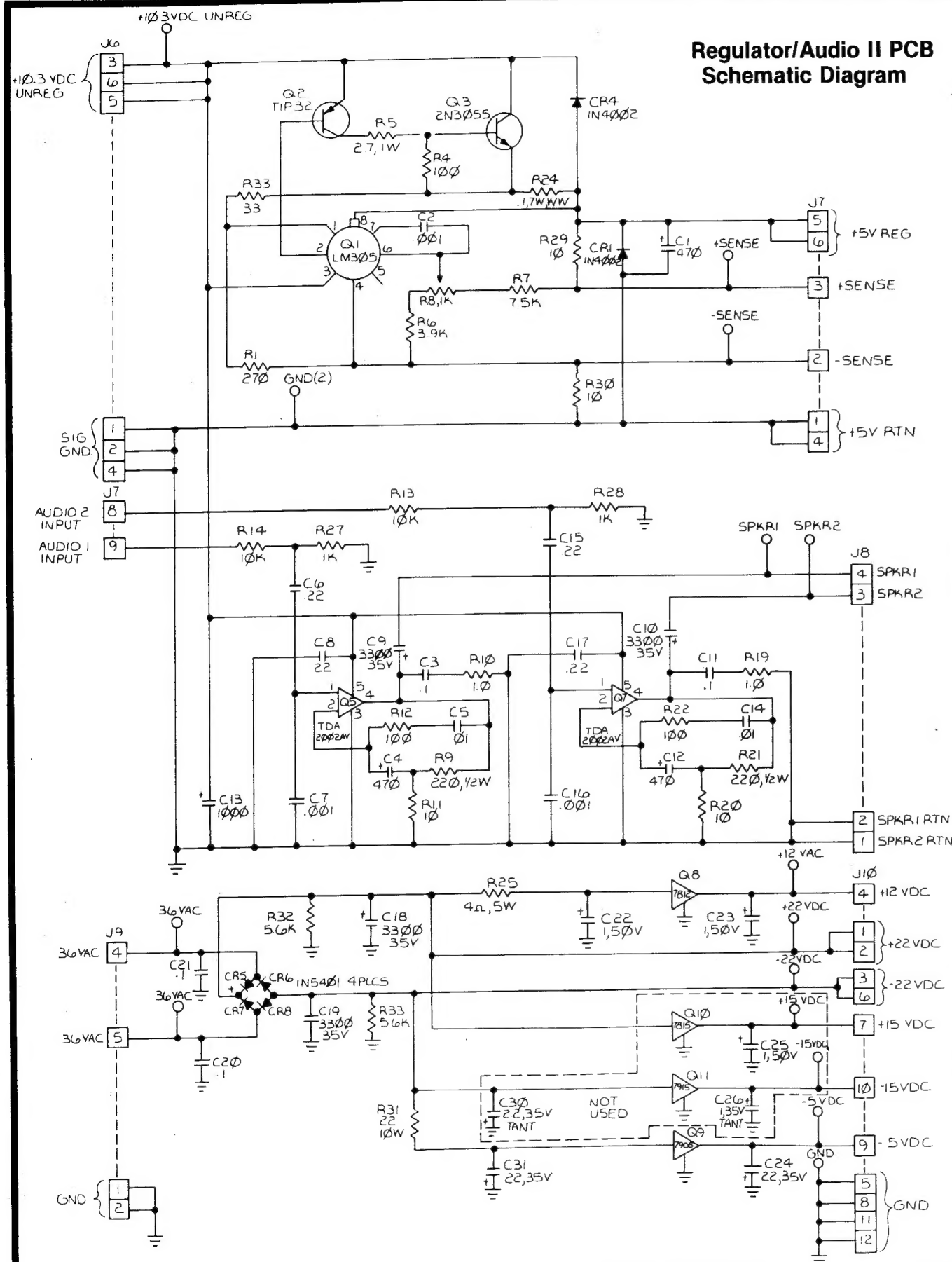


Arabian Main Wiring Diagram



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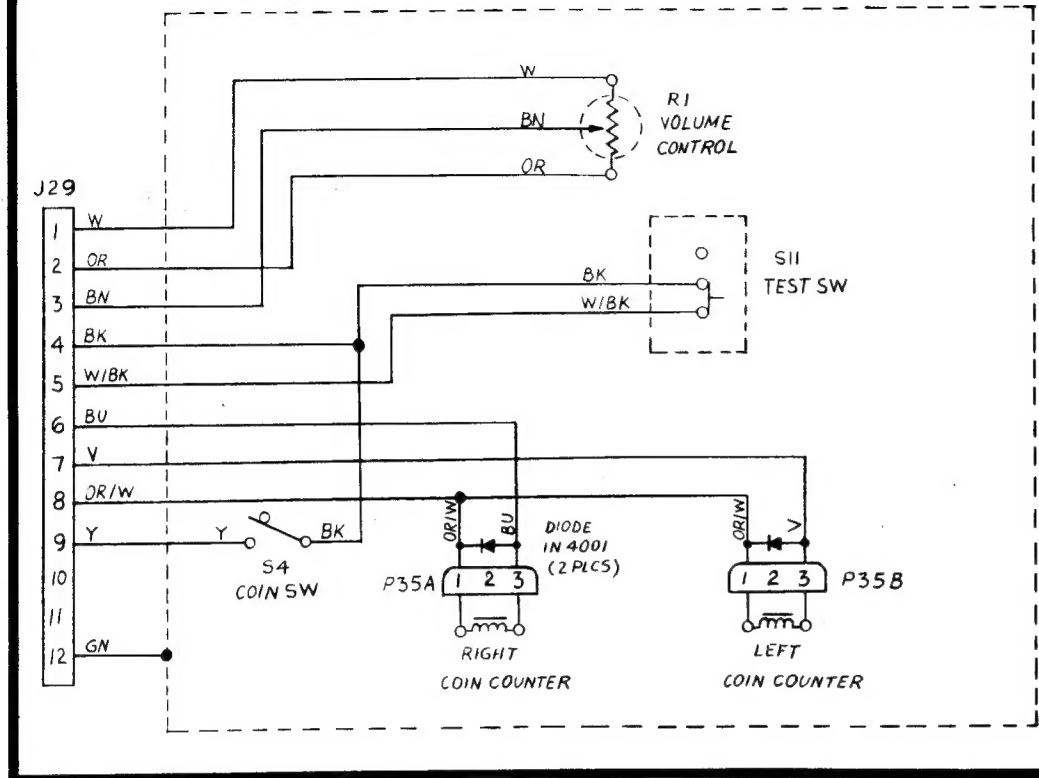
Arabian Regulator/Audio II PCB and Power Supply Diagrams

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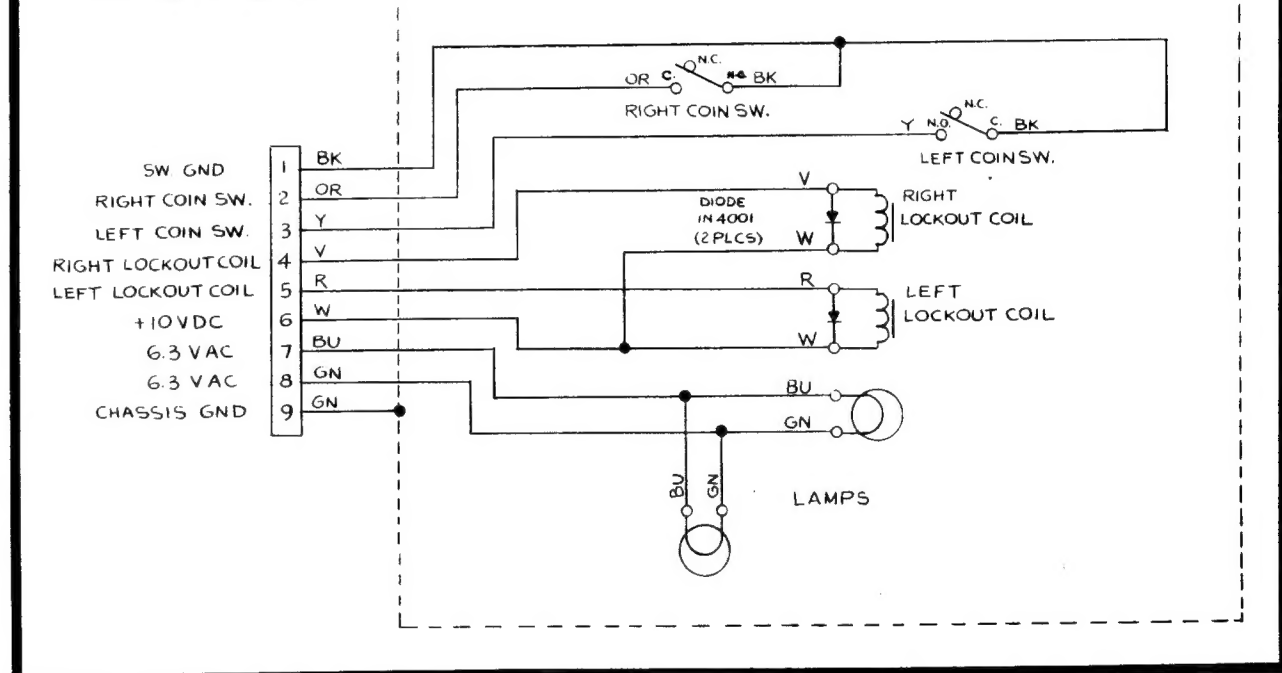
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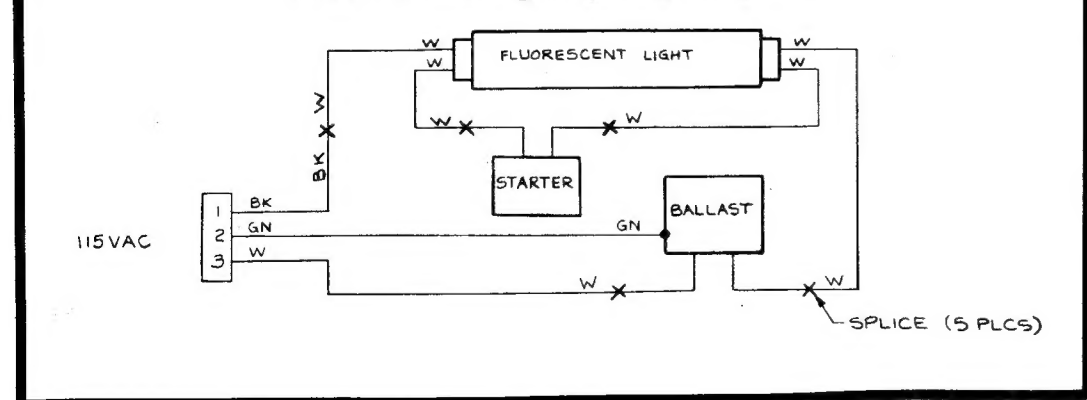
Utility Panel Wiring Diagram



Coin Door Wiring Diagram




Fluorescent Light Wiring Diagram



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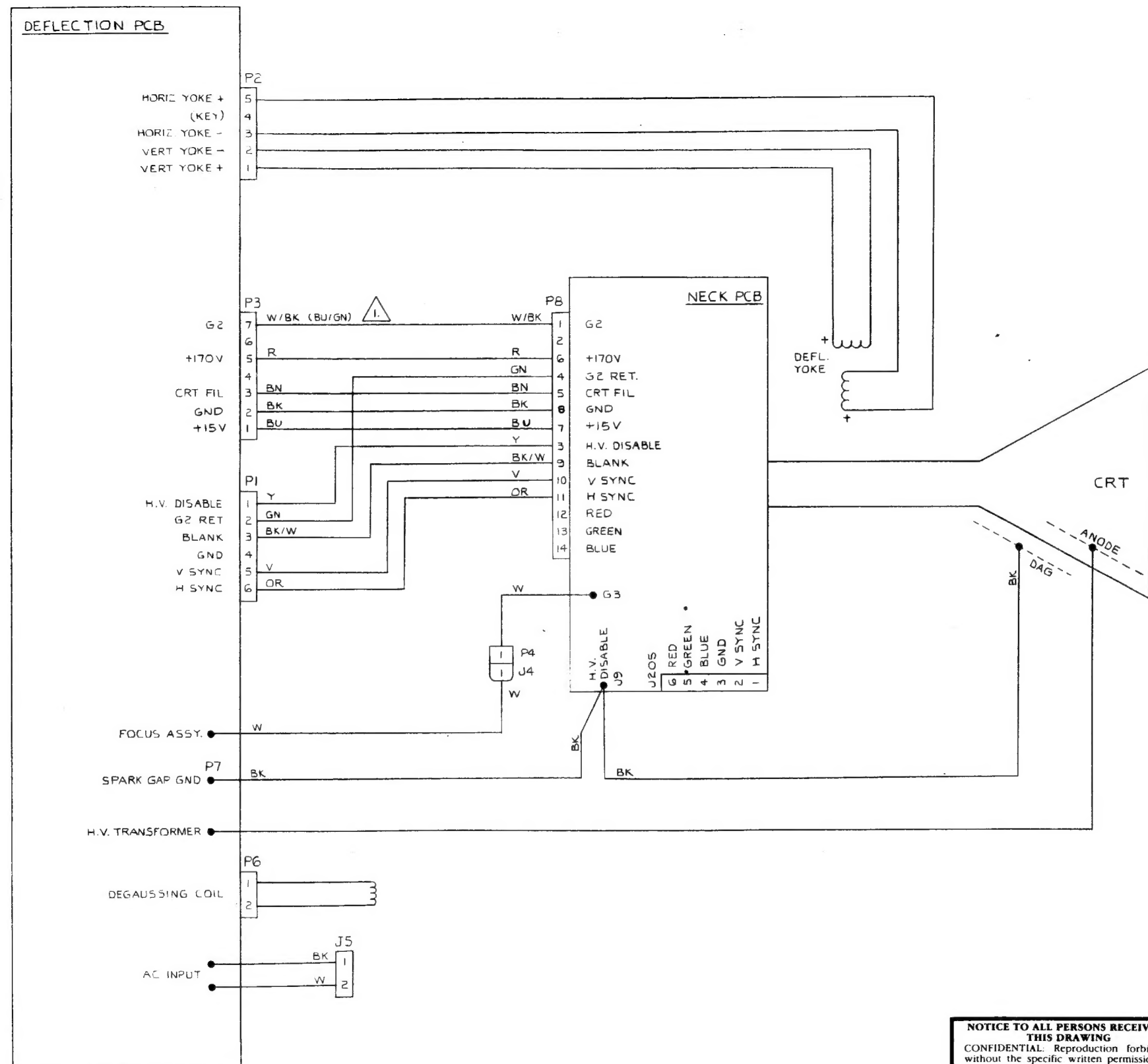
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Arabian Game Interfaces


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NOTE:
1. ALTERNATE COLOR IN PARENTHESES ().

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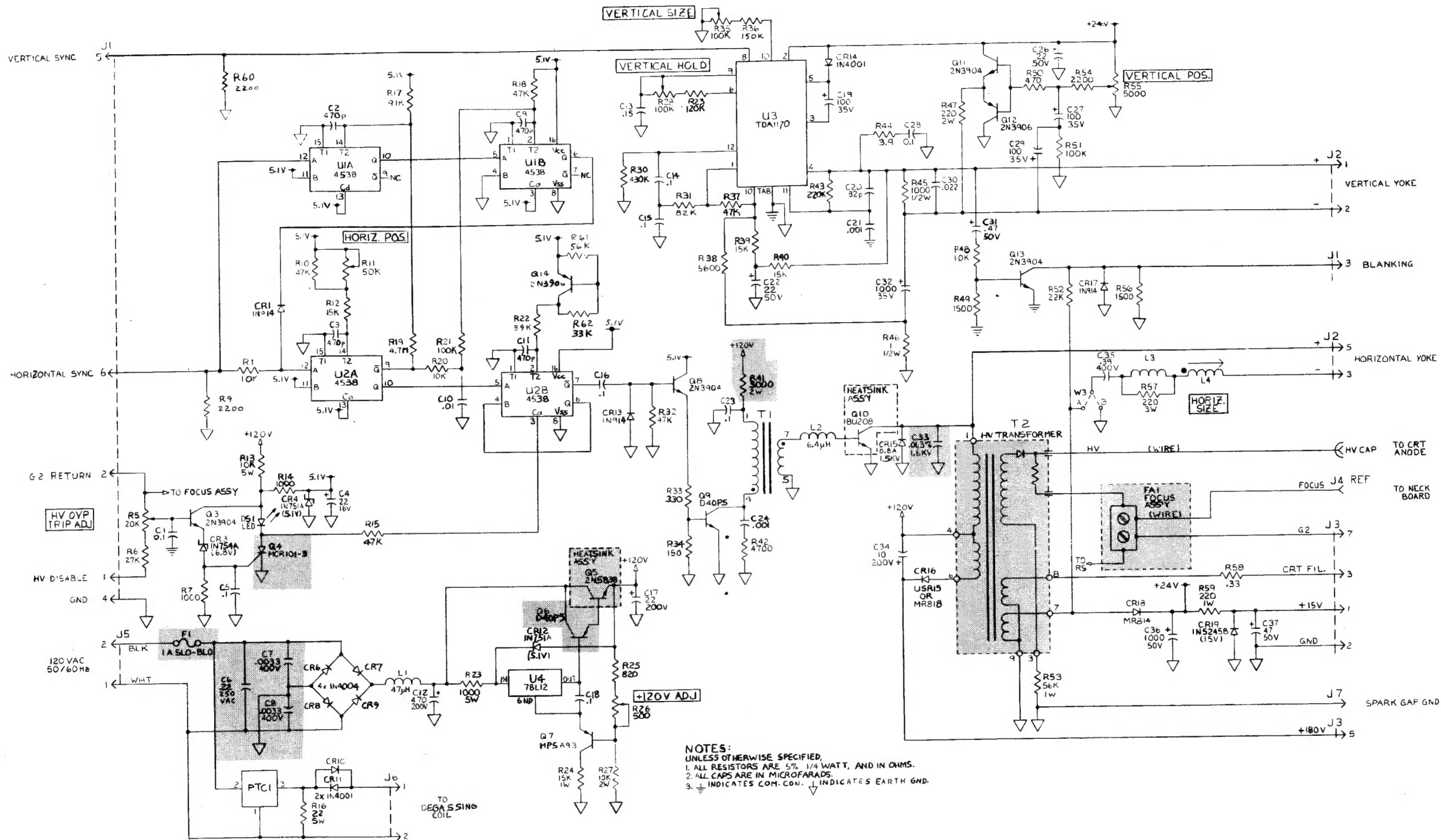
Atari Color Raster Display Wiring Diagram



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PRODUCT SAFETY NOTICE

The shaded areas of this schematic indicate components whose values are of special significance to product safety. Should any component in the shaded areas need to be replaced, use only the value given in the parts lists. Do not deviate from the resistance, wattage, and voltage values shown.

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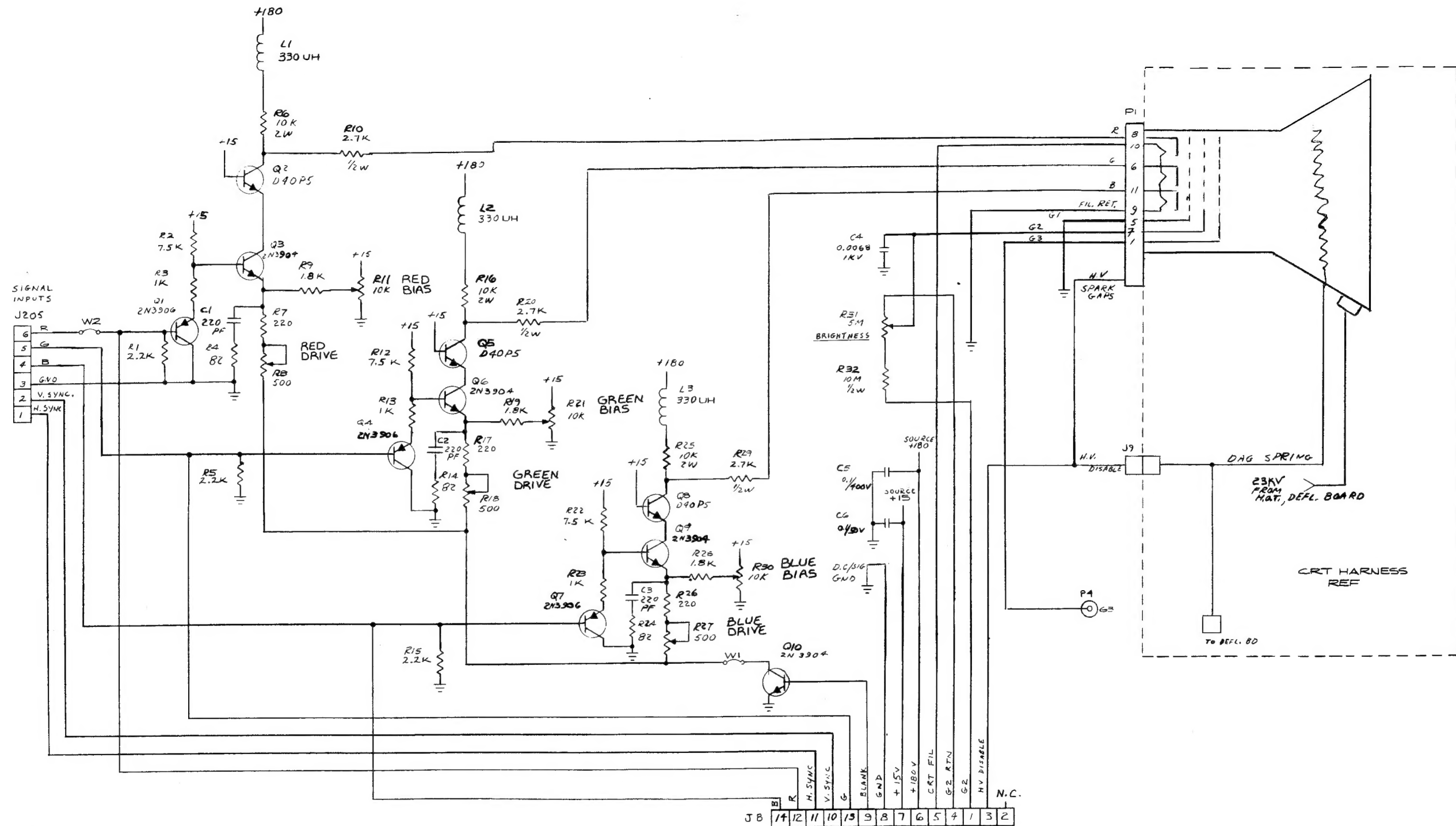
Atari Color Raster Display Deflection PCB Schematic Diagram

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Atari Color Raster Display Neck PCB Schematic Diagram

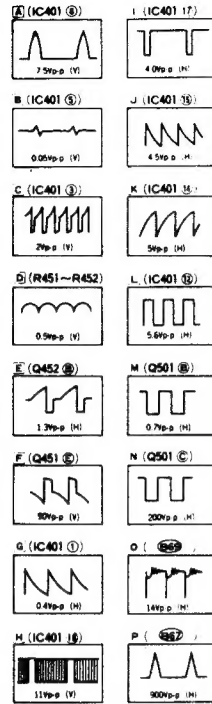
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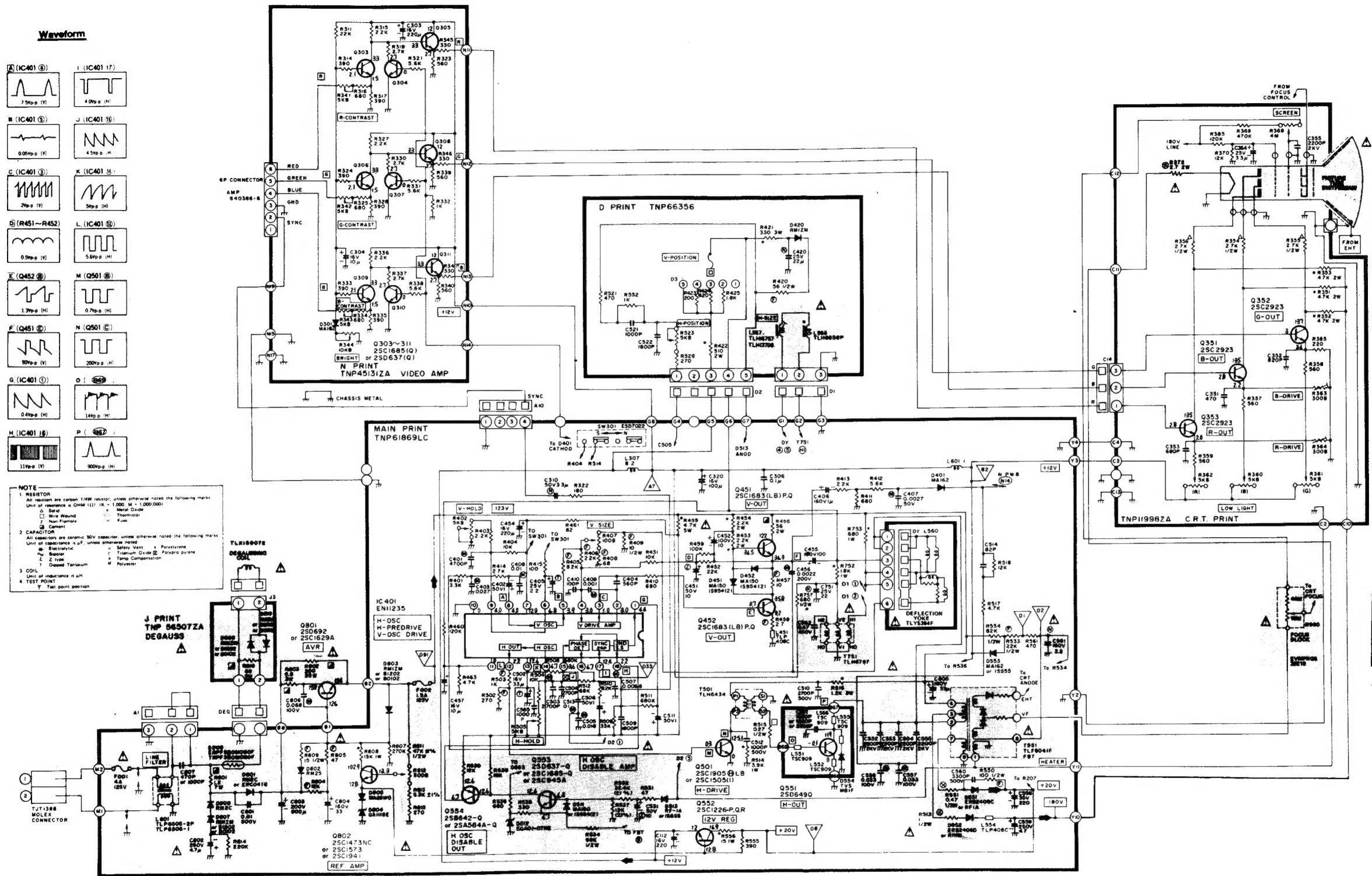
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Waveform



NOTE
 1. RESISTOR
 All resistors are carbon 1/4W resistors, unless otherwise noted. The following marks indicate the tolerance:
 () 1% () 5% () 10% () 20% () 50% () 100%
 2. CAPACITOR
 All capacitors are ceramic 50V capacitors, unless otherwise noted. The following marks indicate the tolerance:
 () 1% () 5% () 10% () 20% () 50% () 100%
 3. COIL
 Unit of inductance is mH.
 4. TEST POINT
 T: Test point position.



WARNING
 Components identified by shading have special characteristics important to safety and must be replaced only with identical parts.

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Matsushita Color Raster Display Schematic Diagram

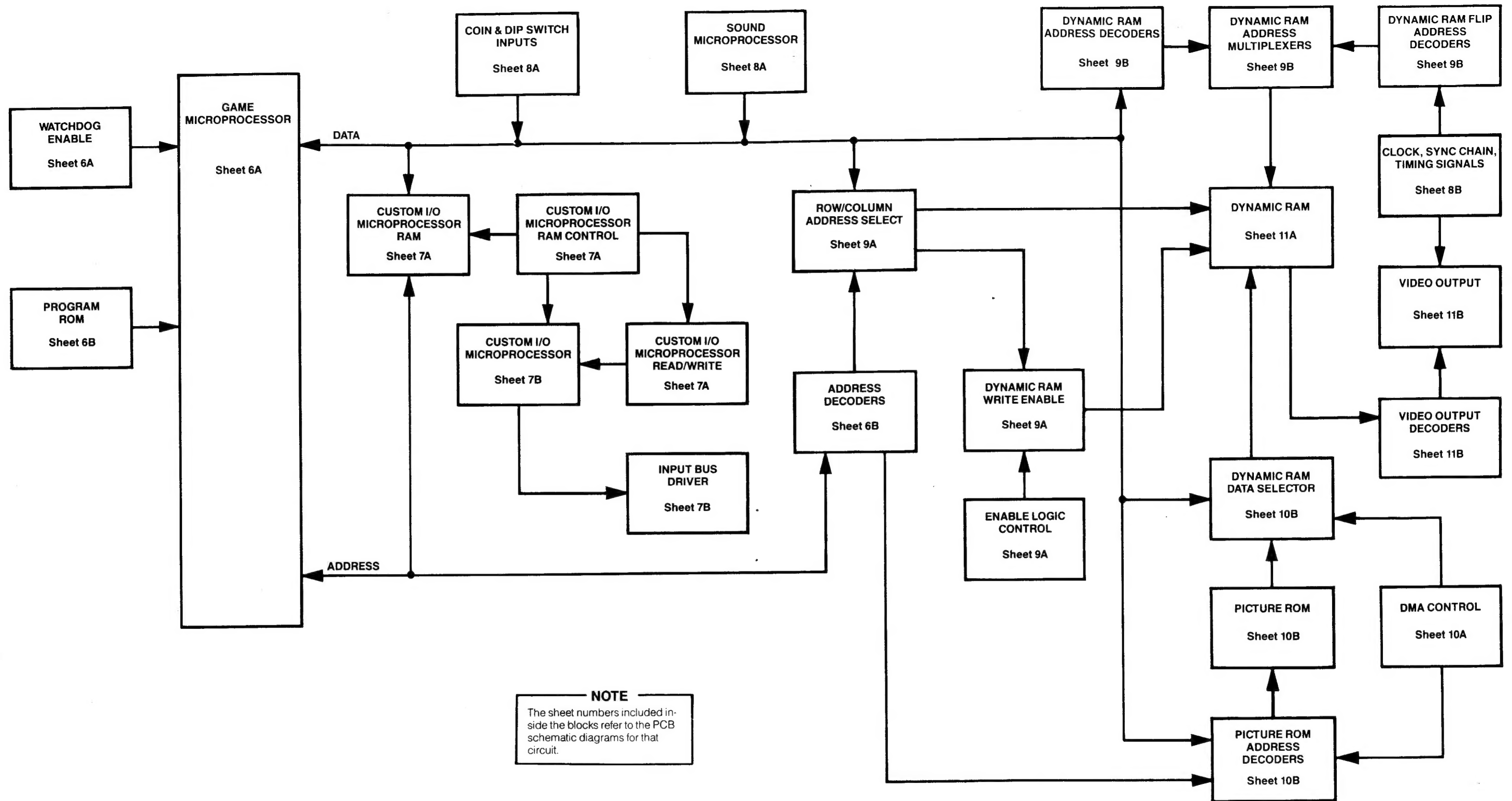


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Arabian Memory Map

HEXA- DECIMAL ADDRESS	ADDRESS BUS SIGNAL LINES																READ/ WRITE	DATA BUS SIGNAL LINES								FUNCTION
	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0		D7	D6	D5	D4	D3	D2	D1	D0	
E006	1	1	1	0	A	A	A	A	A	A	A	A	A	1	1	0	W	D	D	D	D	D	D	D	D	Picture Size and DMA Start
E005	1	1	1	0	A	A	A	A	A	A	A	A	A	1	0	1	W	D	D	D	D	D	D	D	D	
E004	1	1	1	0	A	A	A	A	A	A	A	A	A	1	0	0	W	D	D	D	D	D	D	D	D	DMA RAM Start Address
E003	1	1	1	0	A	A	A	A	A	A	A	A	A	0	1	1	W	D	D	D	D	D	D	D	D	
E002	1	1	1	0	A	A	A	A	A	A	A	A	A	0	1	0	W	D	D	D	D	D	D	D	D	DMA ROM Start Address
E001	1	1	1	0	A	A	A	A	A	A	A	A	A	0	0	1	W	D	D	D	D	D	D	D	D	
E000	1	1	1	0	A	A	A	A	A	A	A	A	A	0	0	0	W					D	D	D	D	BSEL Bank Select
DFFF-D000	1	1	0	1	A	A	A	A	A	A	A	A	A	A	A	A	R/W	D	D	D	D	D	D	D	D	Custom Microprocessor RAM
CA00	1	1	0	0	1	0	1	0	A	A	A	A	A	A	A	A	R/W	D	D	D	D	D	D	D	D	Sound Chip Data
C800	1	1	0	0	1	0	0	0	A	A	A	A	A	A	A	A	W	D	D	D	D	D	D	D	D	Sound Chip Address
C200	1	1	0	0	0	0	1	0	A	A	A	A	A	A	A	A	R					D	D	D	D	Option Switches
C000	1	1	0	0	0	0	0	0	A	A	A	A	A	A	A	A	R					D	D	D	D	Coin Inputs
BFFF-8000	1	0	1	1	A	A	A	A	A	A	A	A	A	A	A	A	R/W	D	D	D	D	D	D	D	D	Bit Map RAM
6000-7FFF	0	1	1	A	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	D	Program ROM (Z-80)
4000-5FFF	0	1	0	A	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	D	
2000-3FFF	0	0	1	A	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	D	
0000-1FFF	0	0	0	A	A	A	A	A	A	A	A	A	A	A	A	A	R	D	D	D	D	D	D	D	D	



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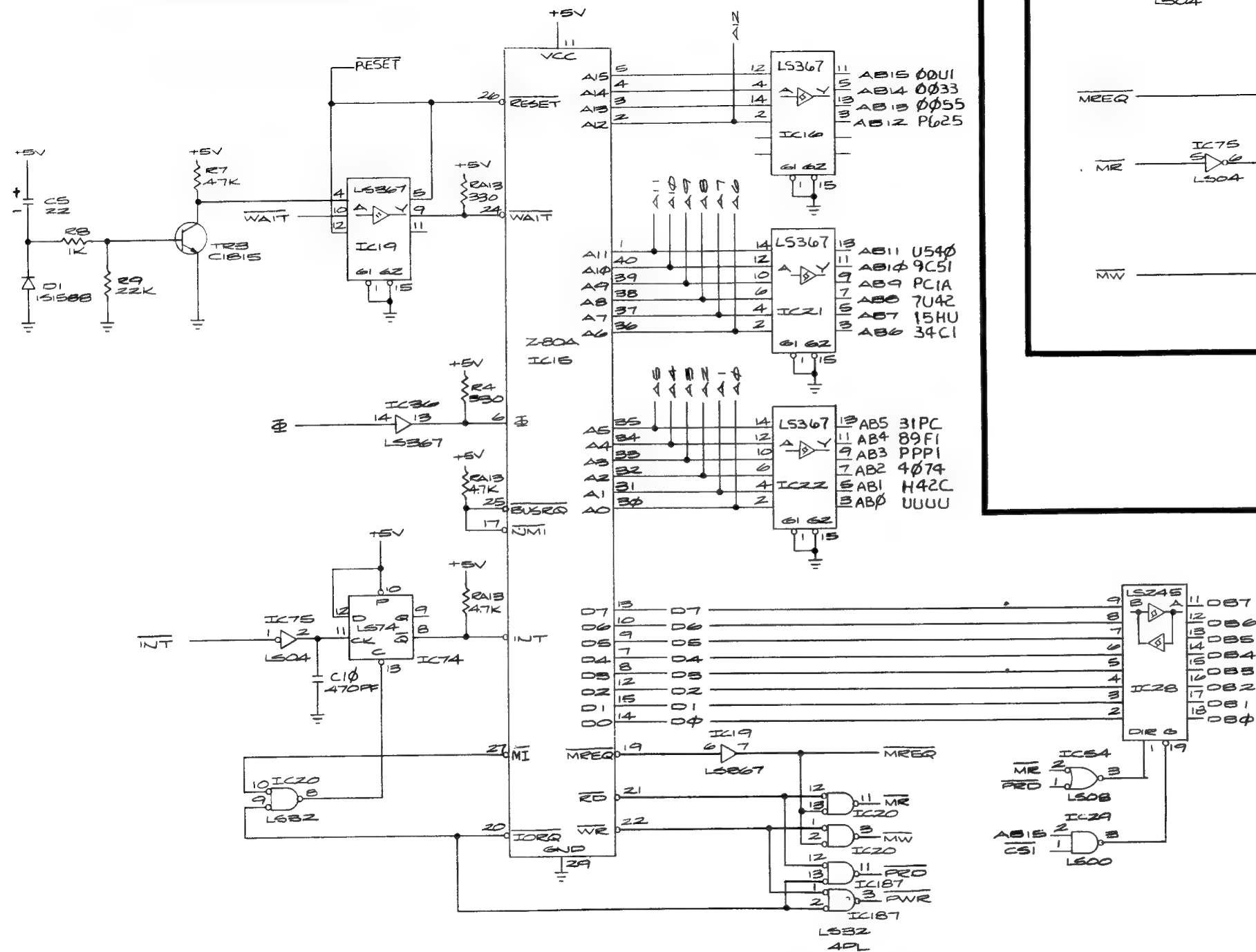
Arabian Block Diagram/Guide to PCB Schematics



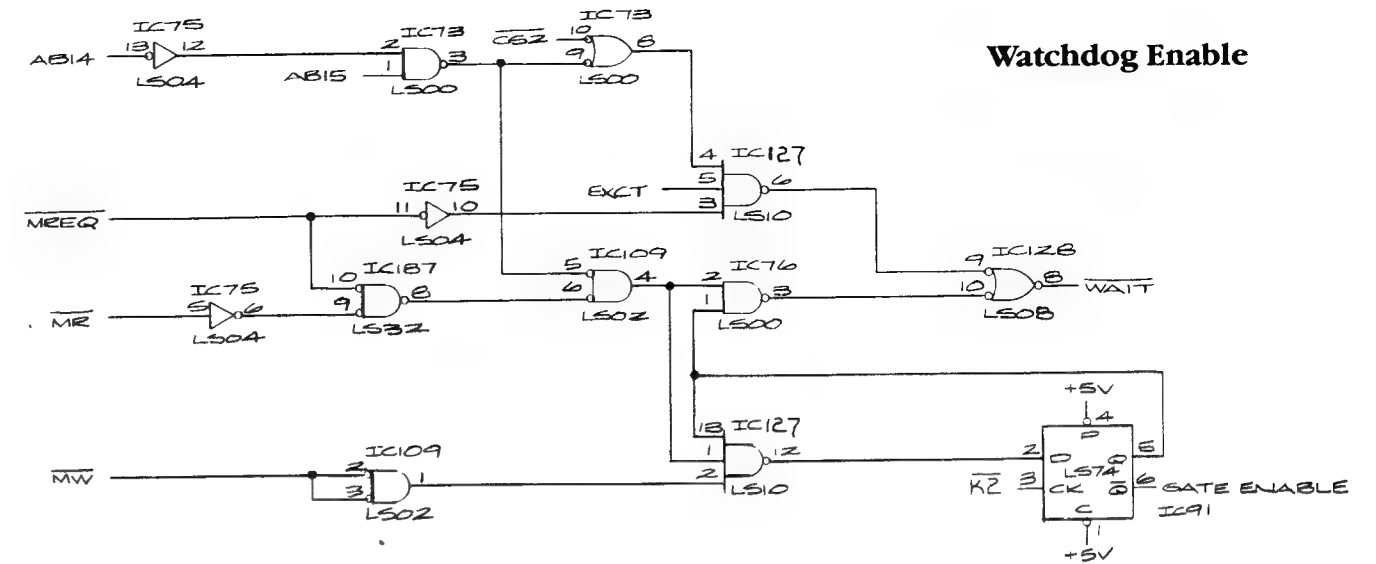
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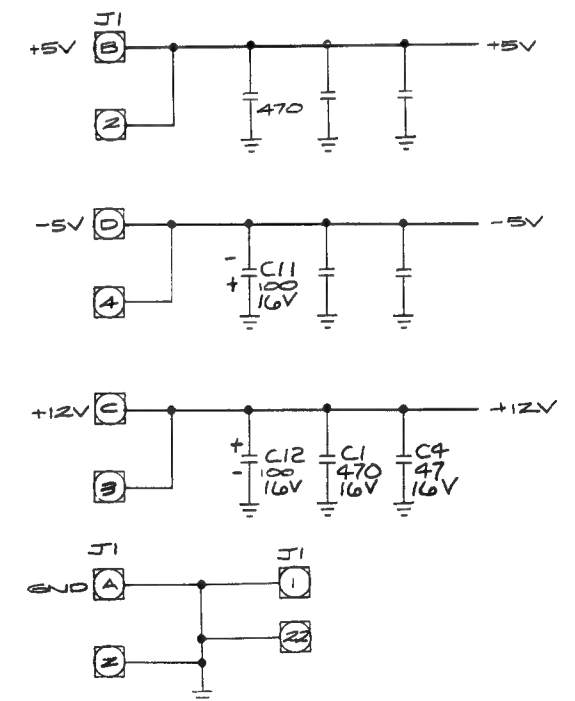
Game Microprocessor





Watchdog Enable



Game Power Input



NOTES:

-  DENOTES J1 CONNECTOR
-  DENOTES J2 CONNECTOR

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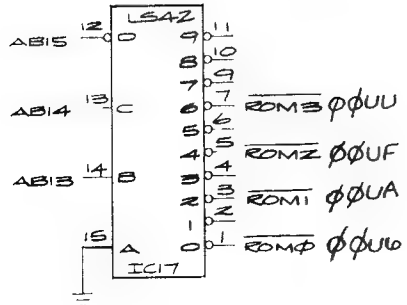
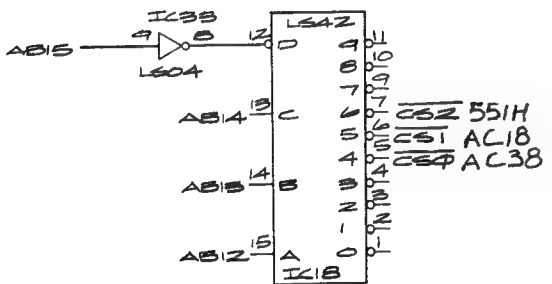
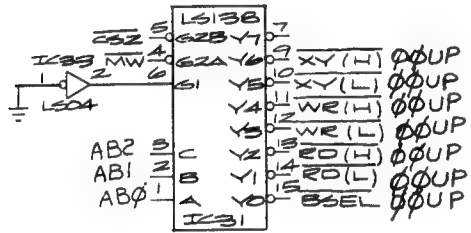
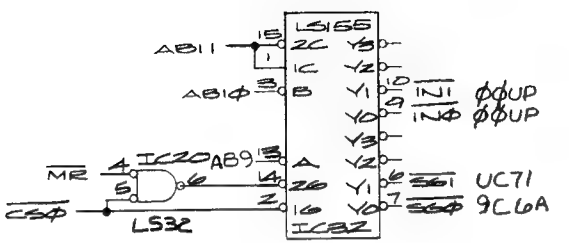
Arabian PCB Schematic Diagram



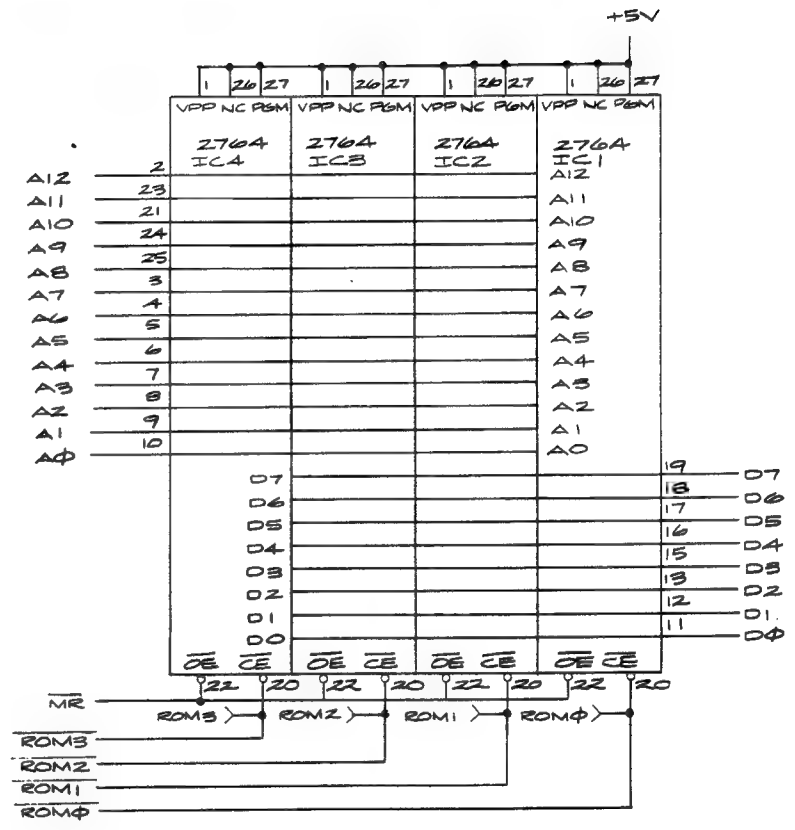
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Address Decoders



Program ROM



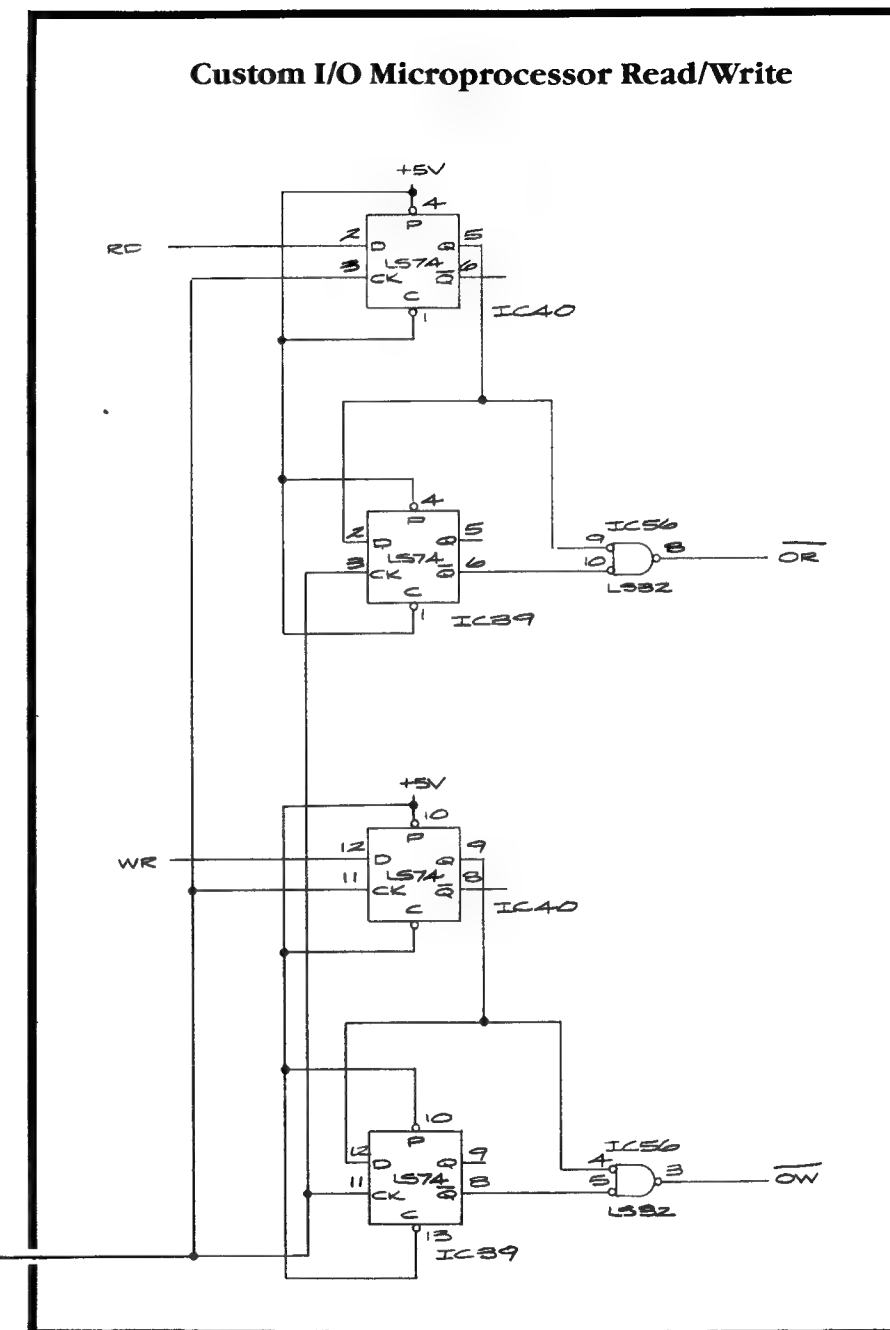
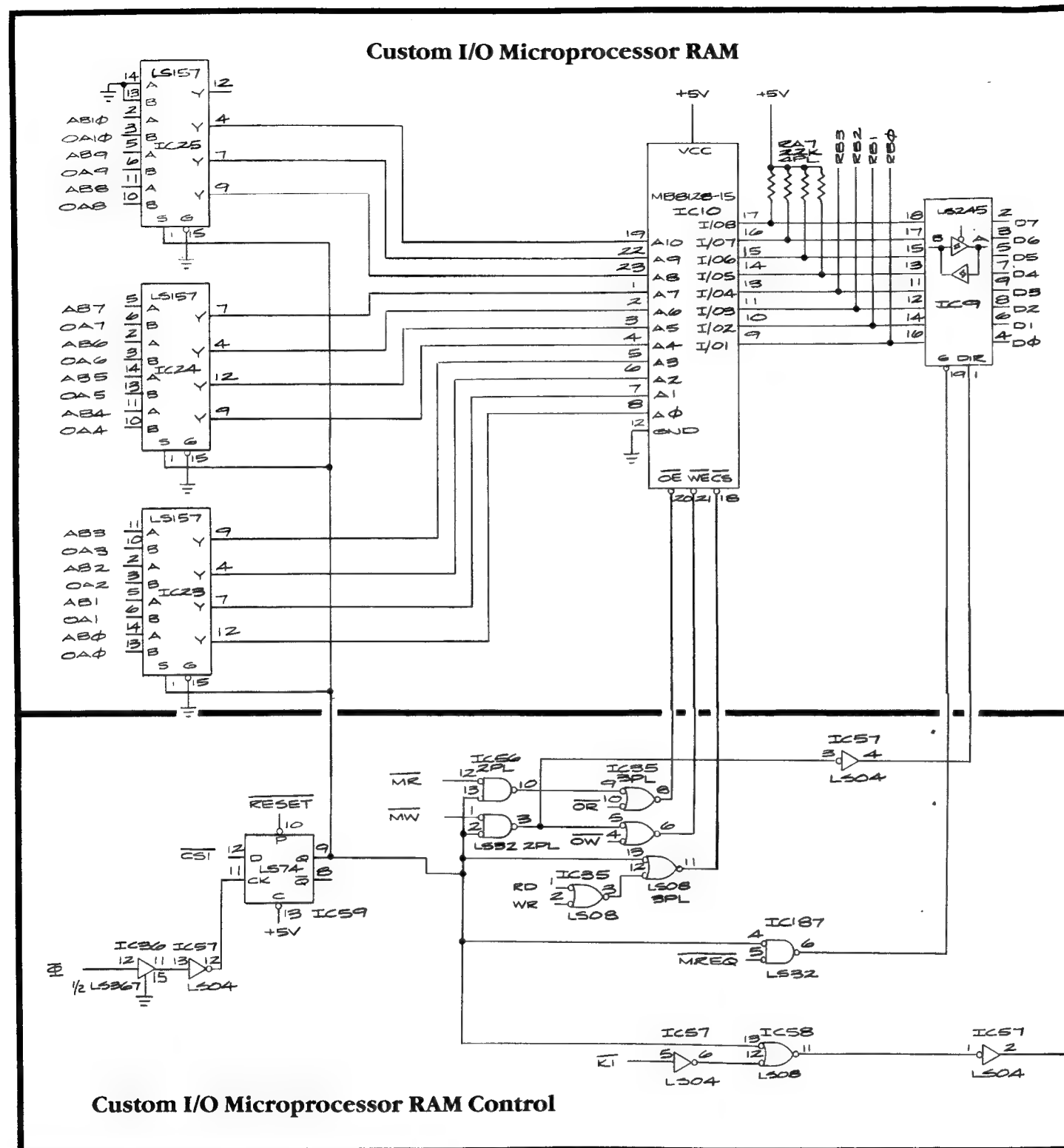
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Arabic PCB Schematic Diagram



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Arabian PCB Schematic Diagram

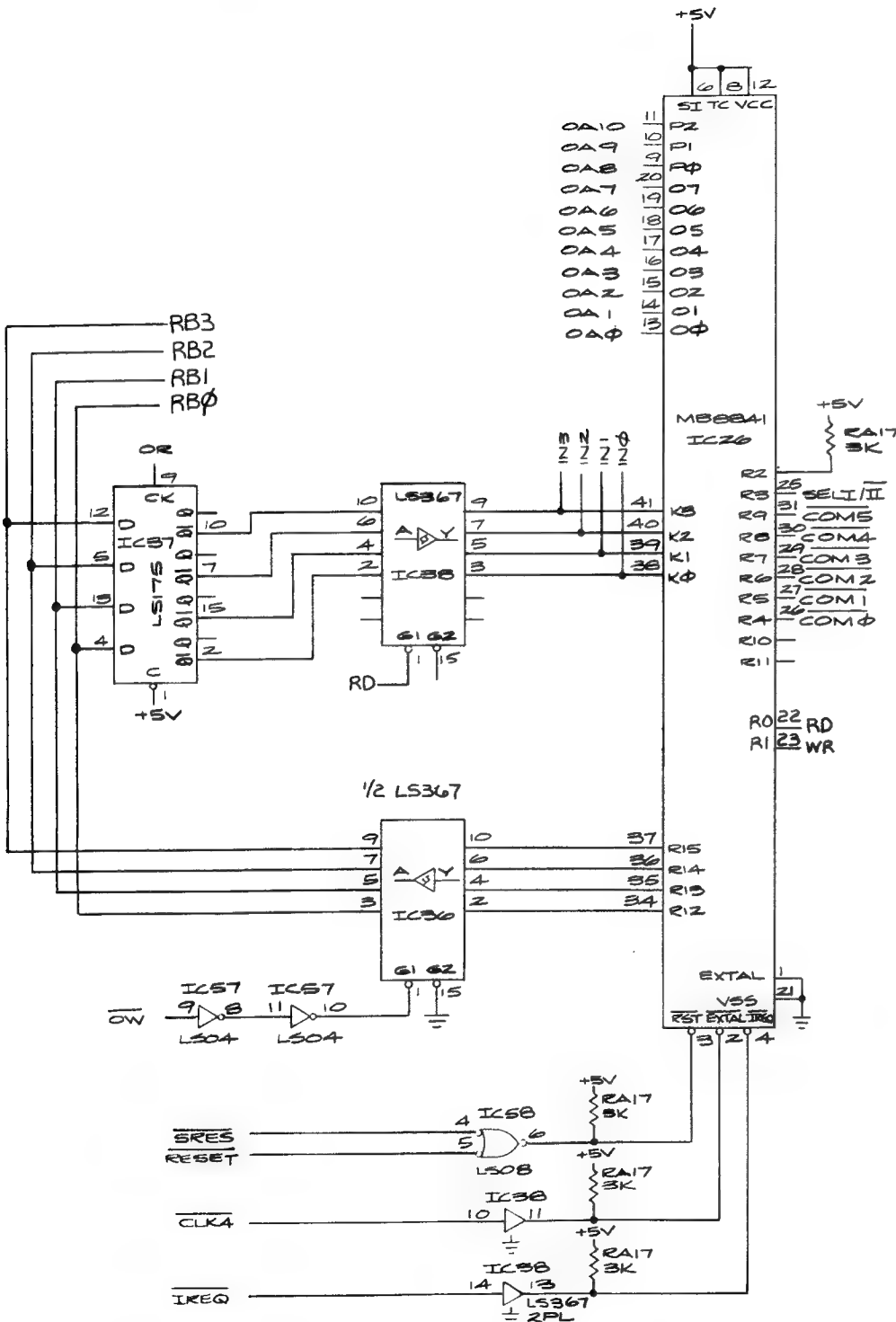


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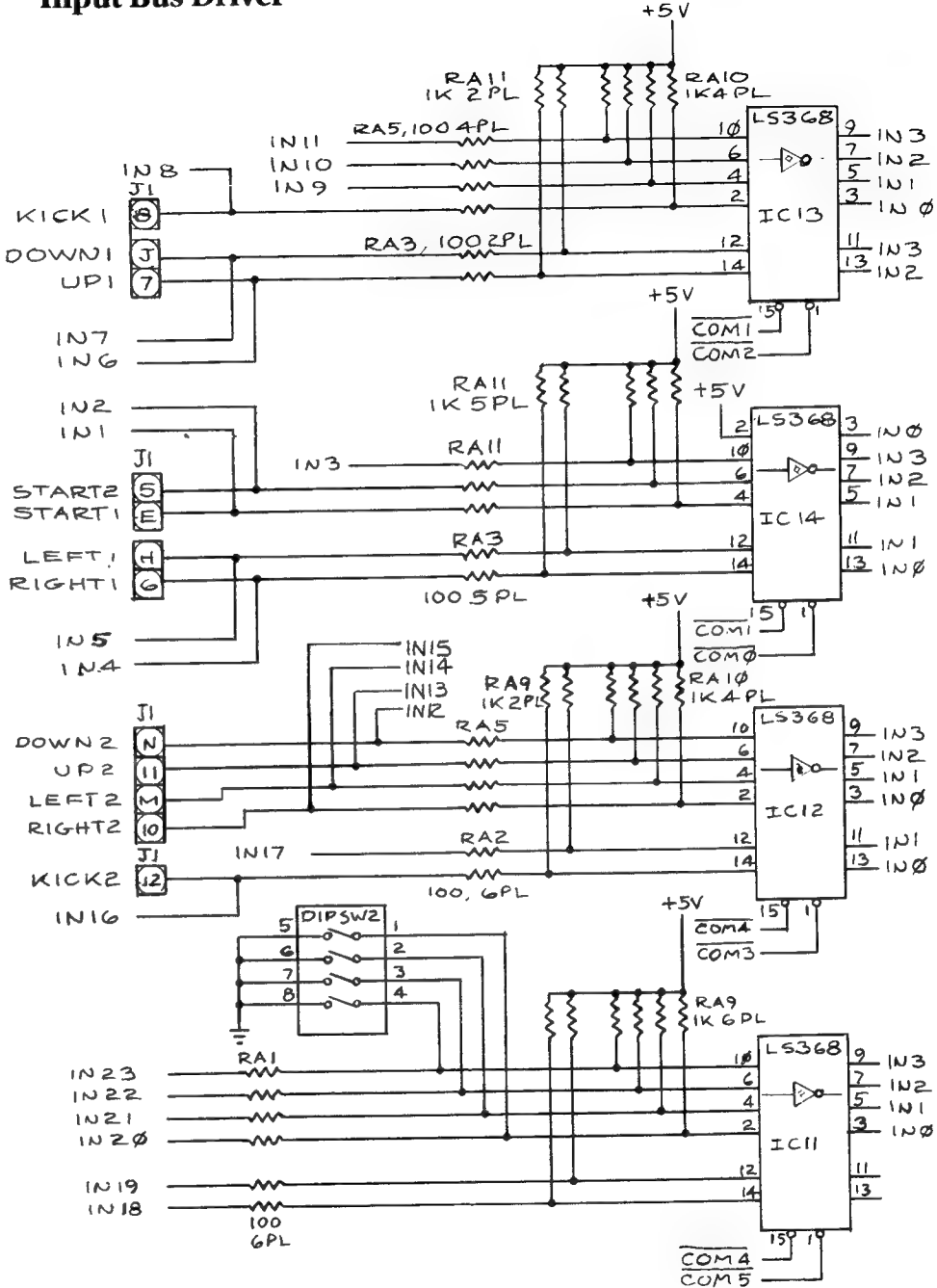
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Custom I/O Microprocessor



Input Bus Driver



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Arabian PCB Schematic Diagram



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Clock, Sync Chain, and Timing Signals

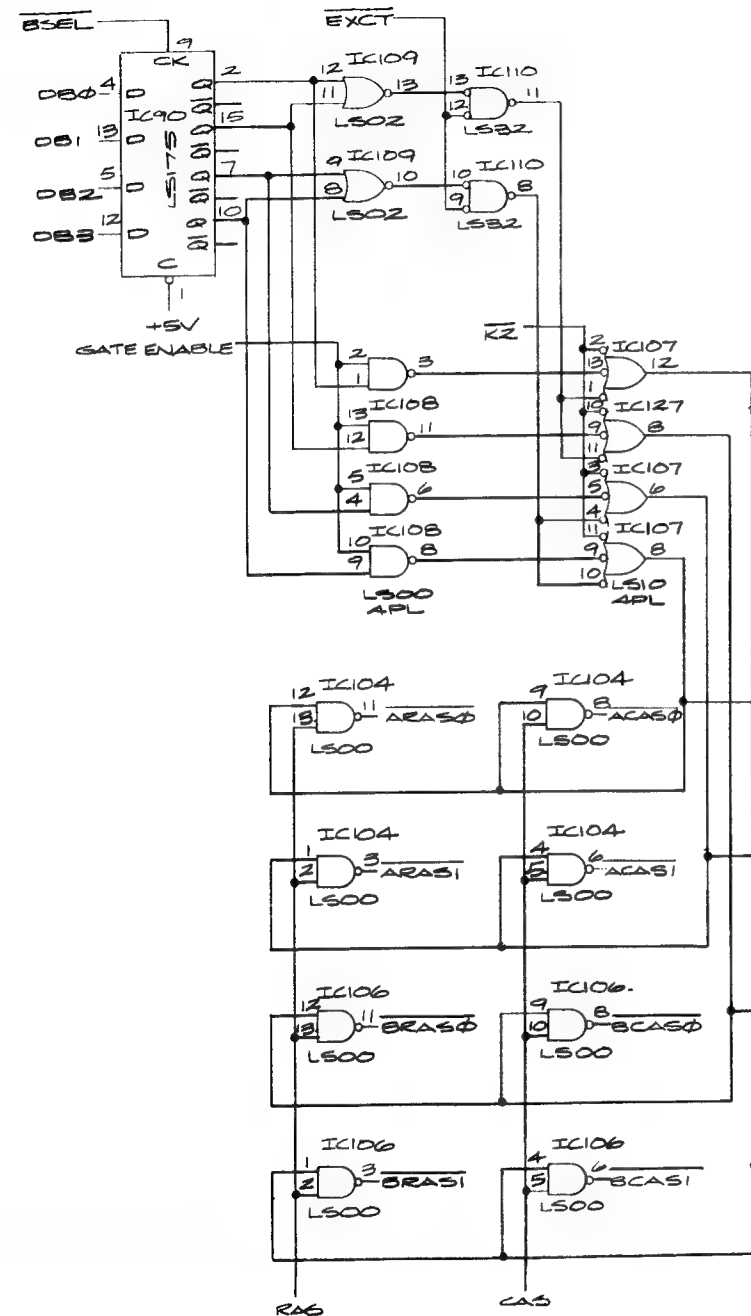
Arabian PCB Schematic Diagram



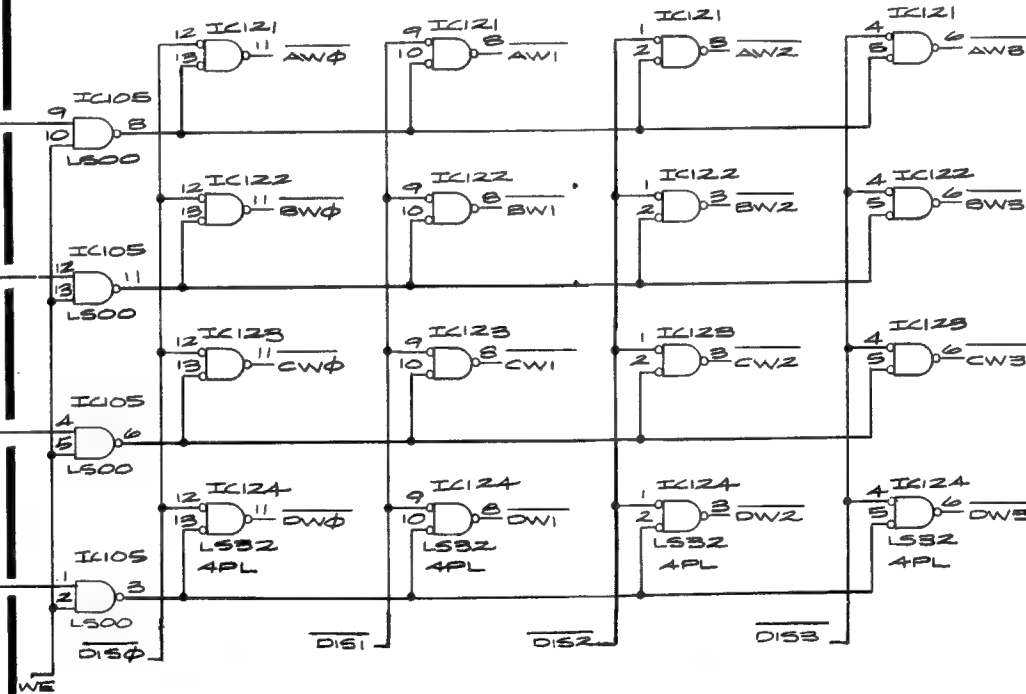
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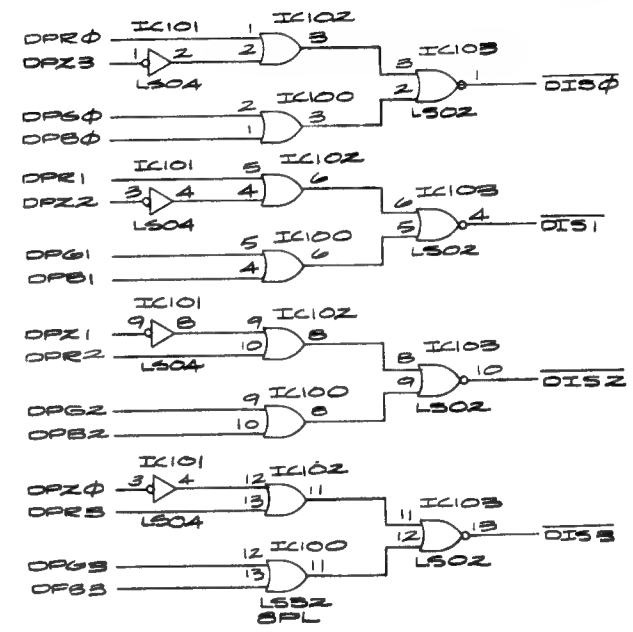
Row/Column Address Select



Dynamic RAM Write Enable



Enable Logic Control



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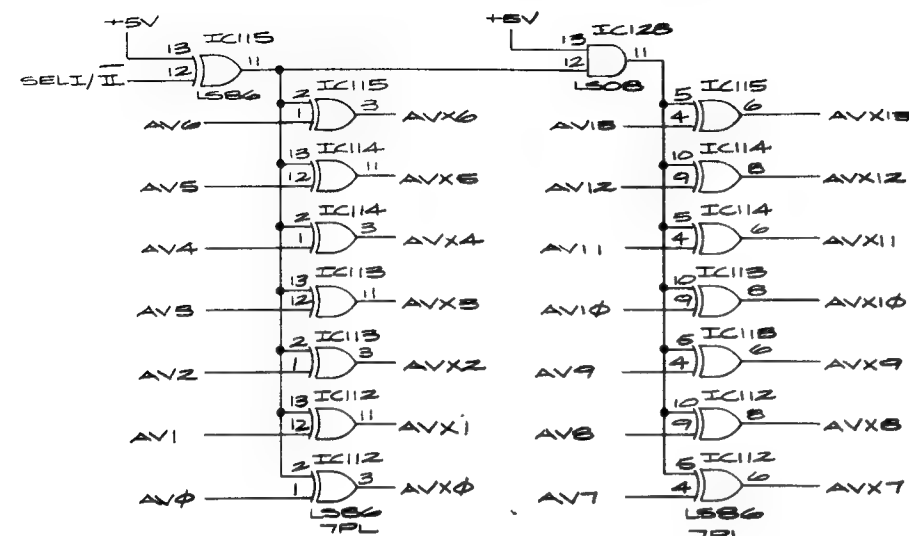
Arabic PCB Schematic Diagram



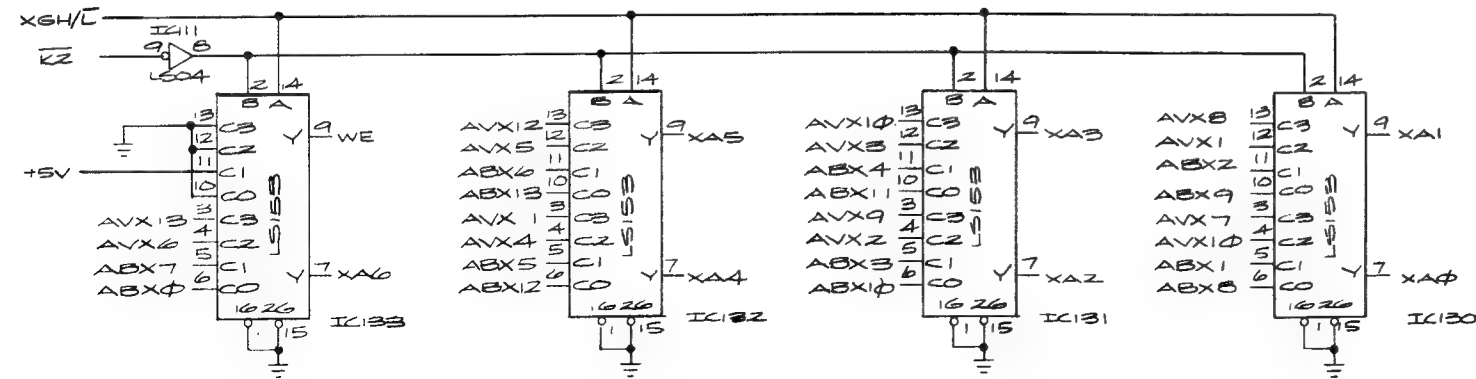
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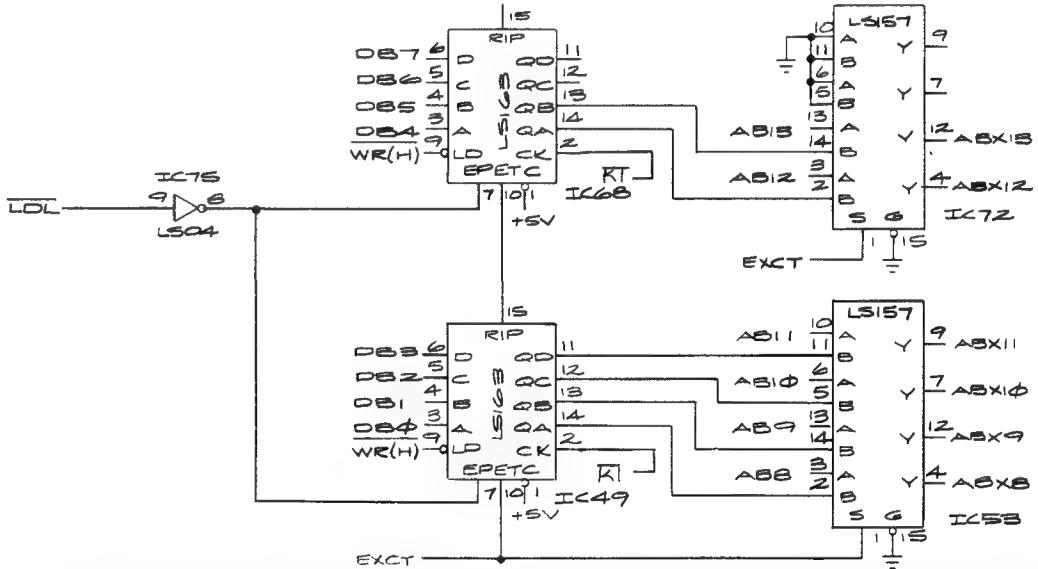
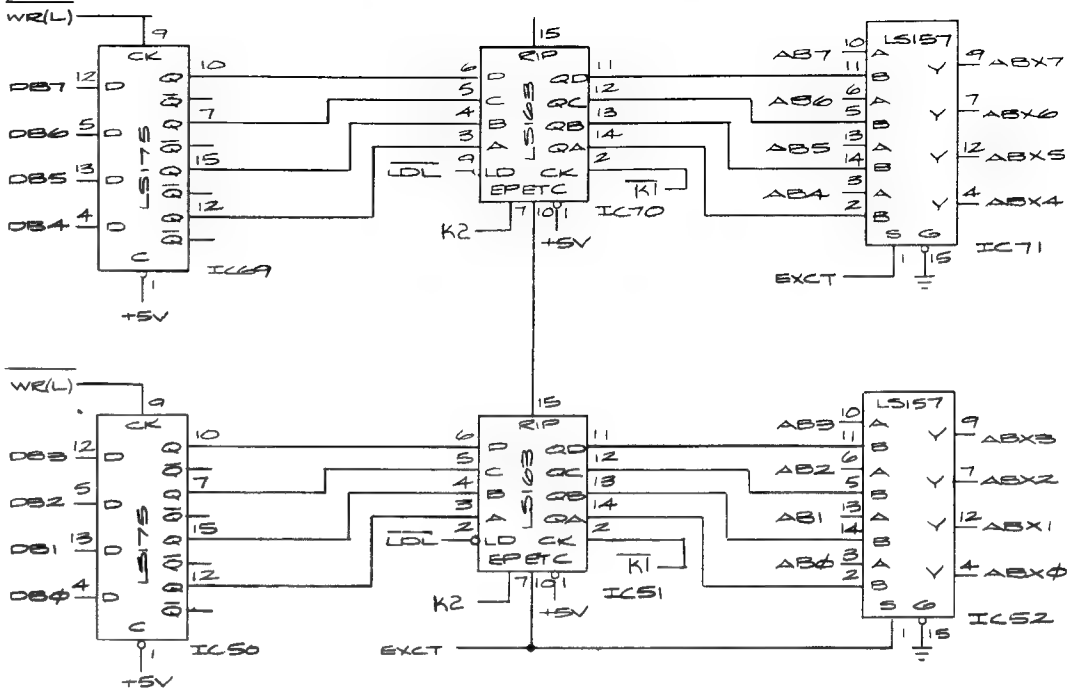
Dynamic RAM Flip Address Decoders



Dynamic RAM Address Multiplexers



Dynamic RAM Address Decoders

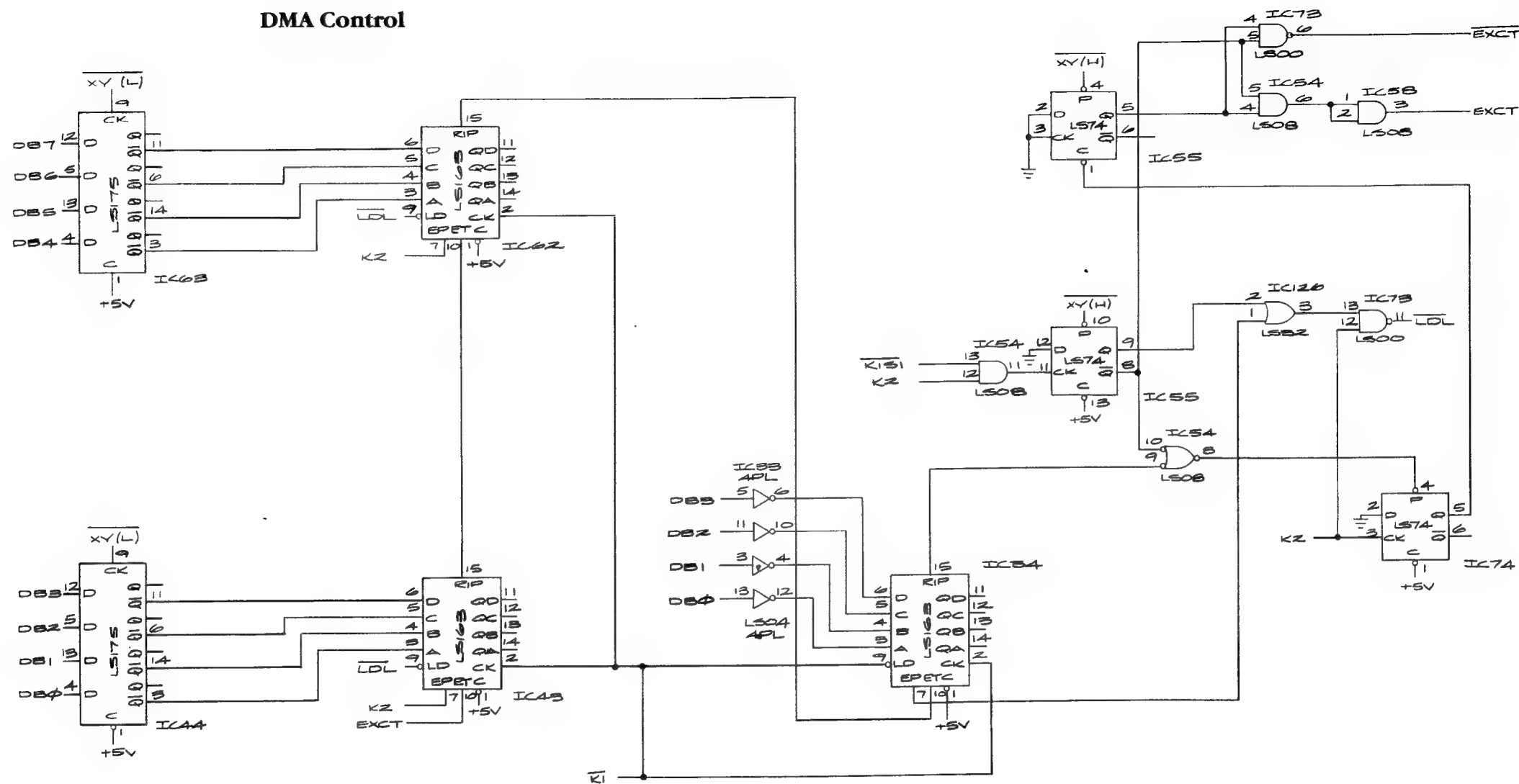


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Arabian PCB Schematic Diagram



DMA Control



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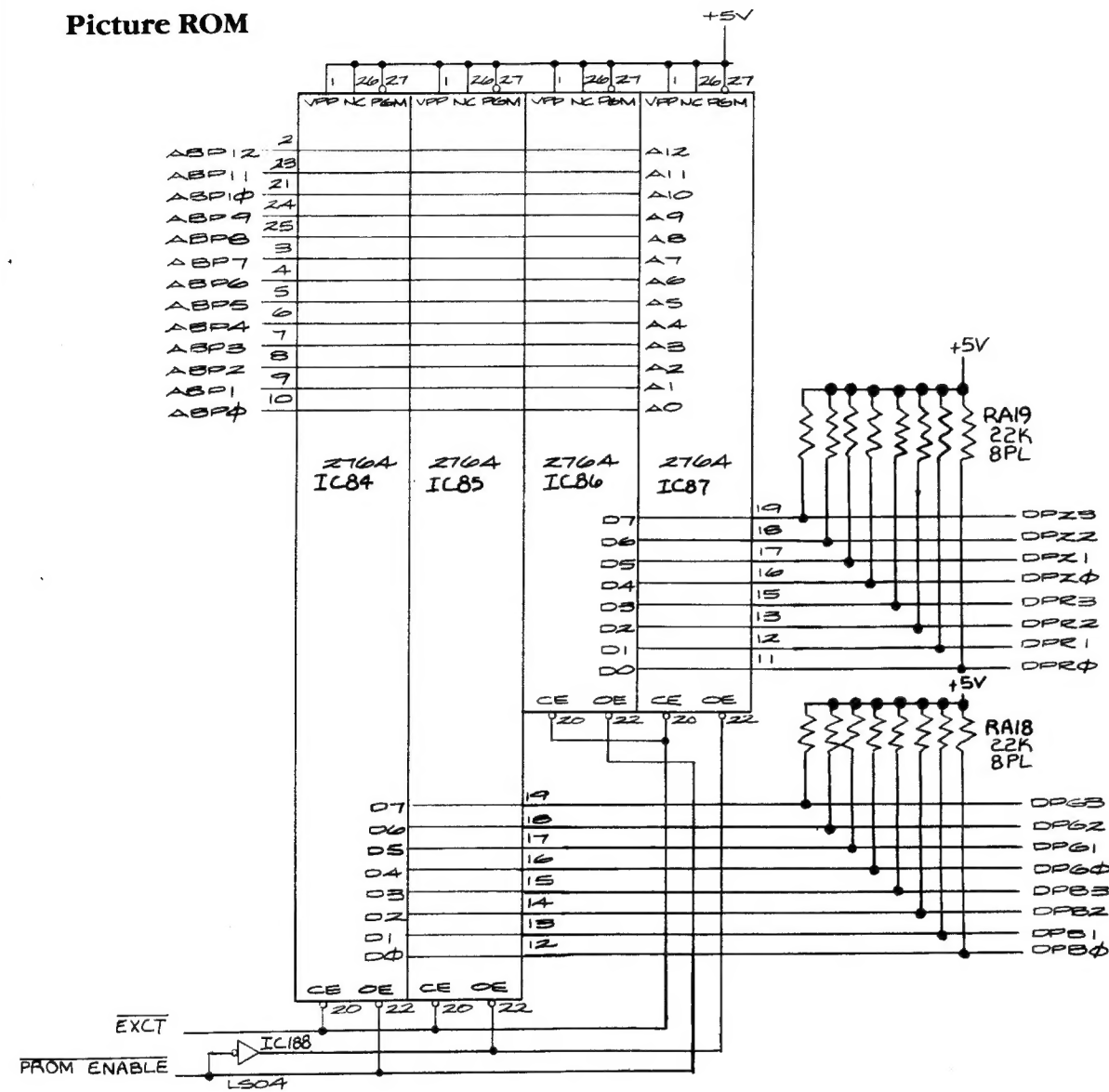
Arabian PCB Schematic Diagram



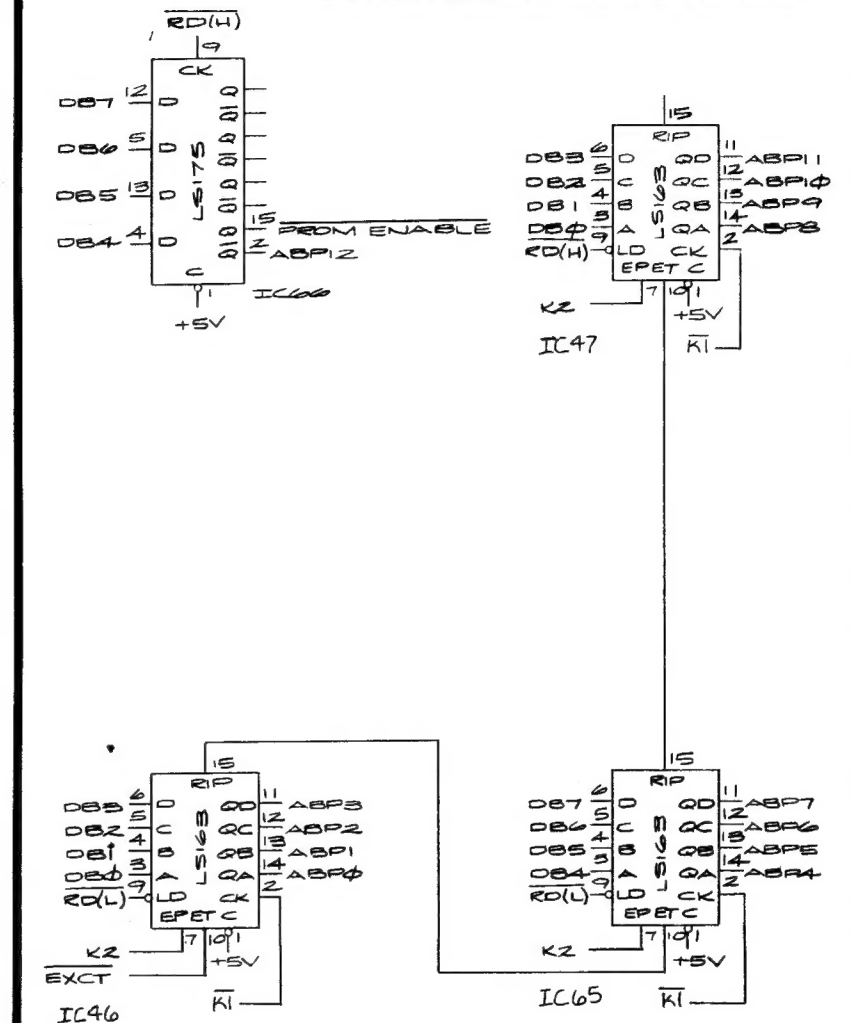
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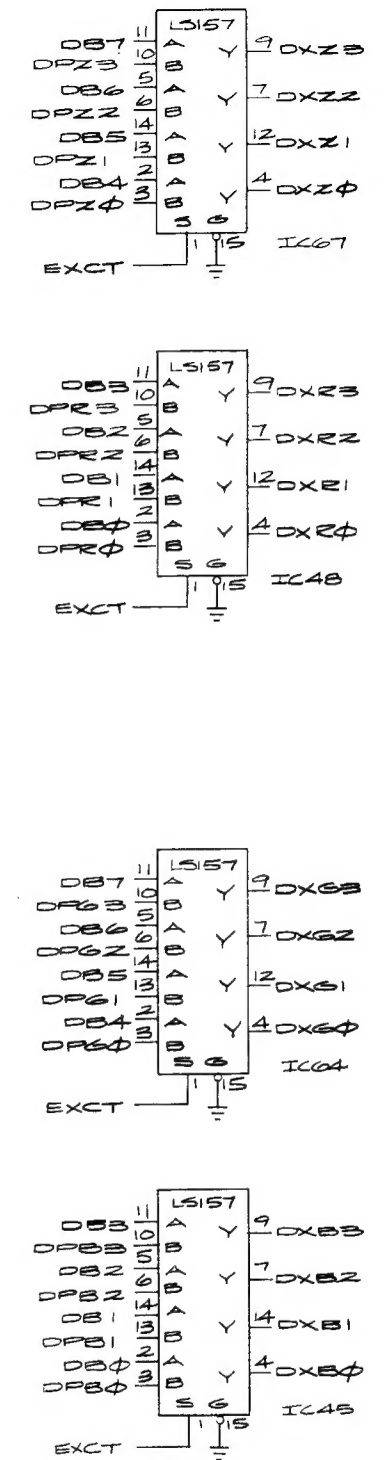
Picture ROM



Picture ROM Address Decoders



Dynamic RAM Data Selector



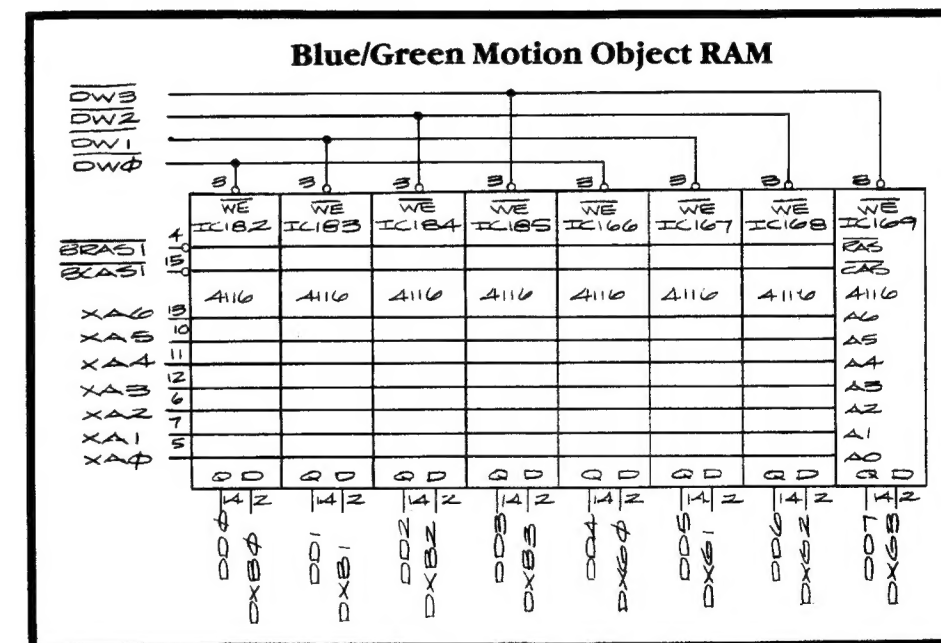
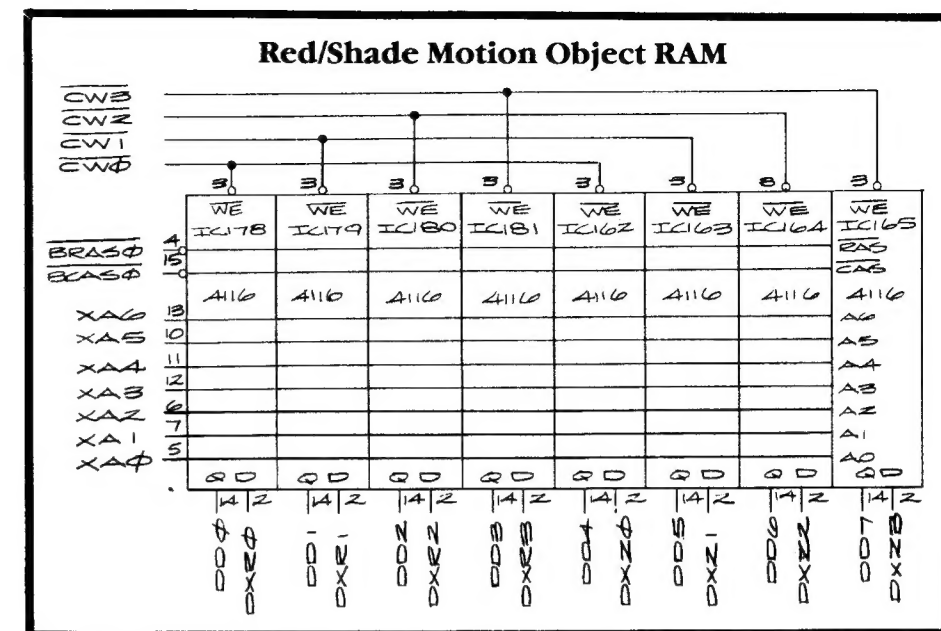
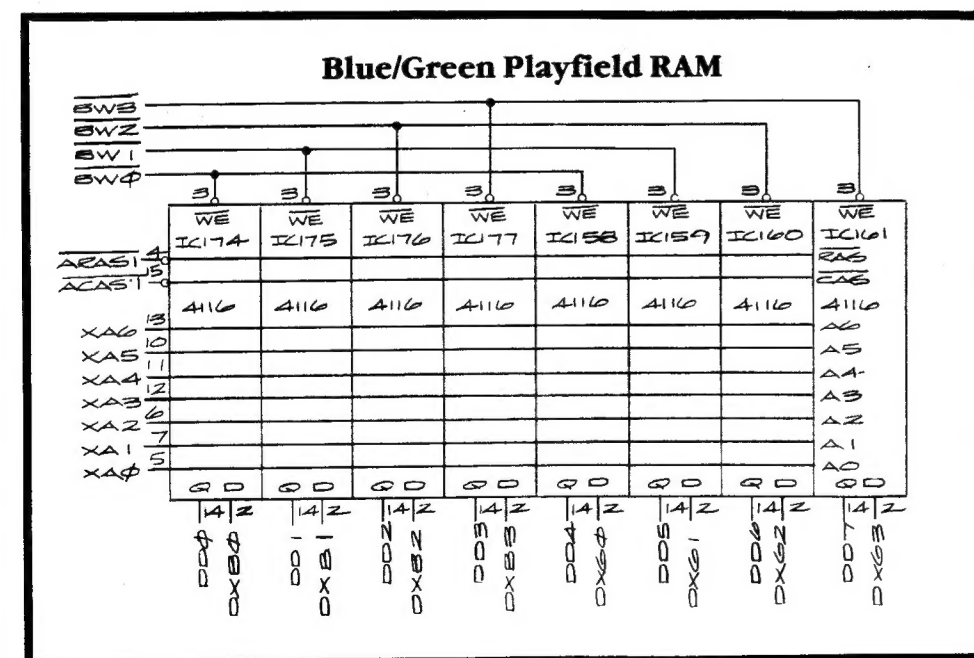
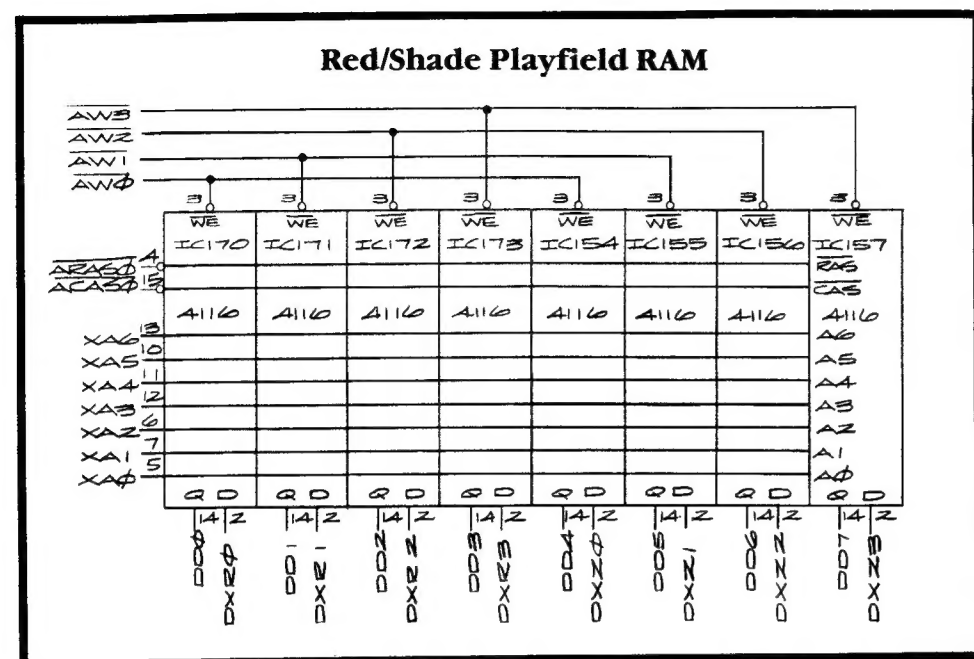
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Arabian PCB Schematic Diagram



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Arabian PCB Schematic Diagram



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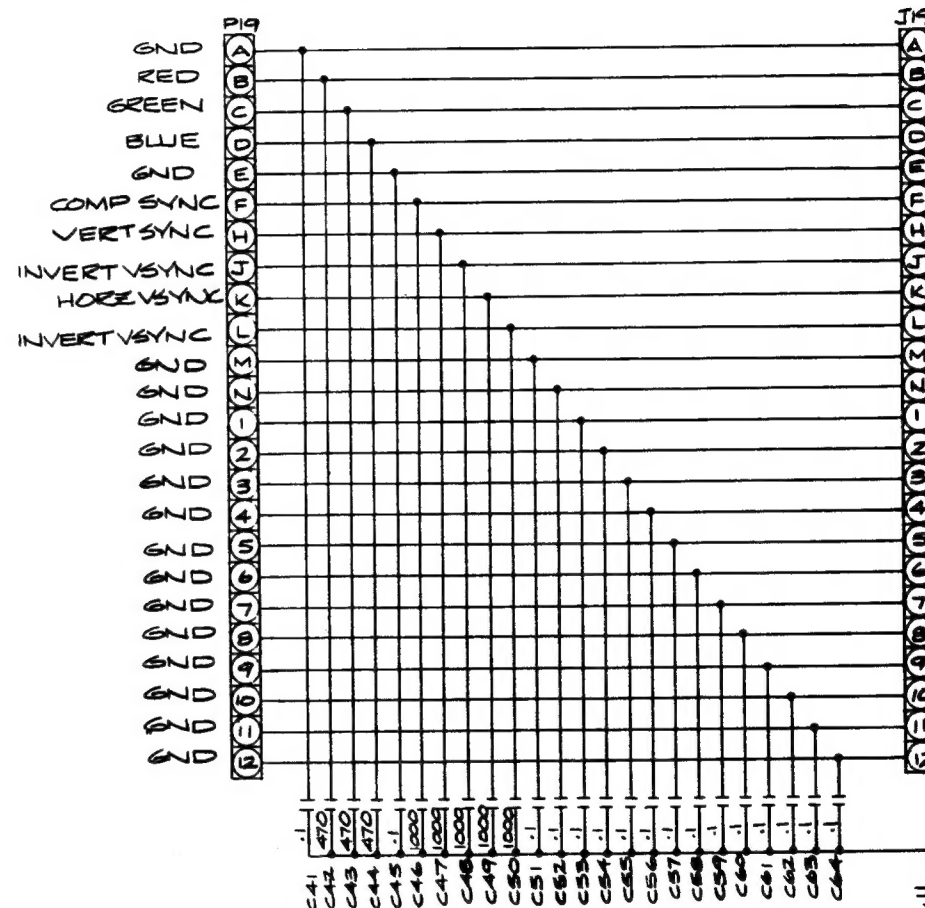
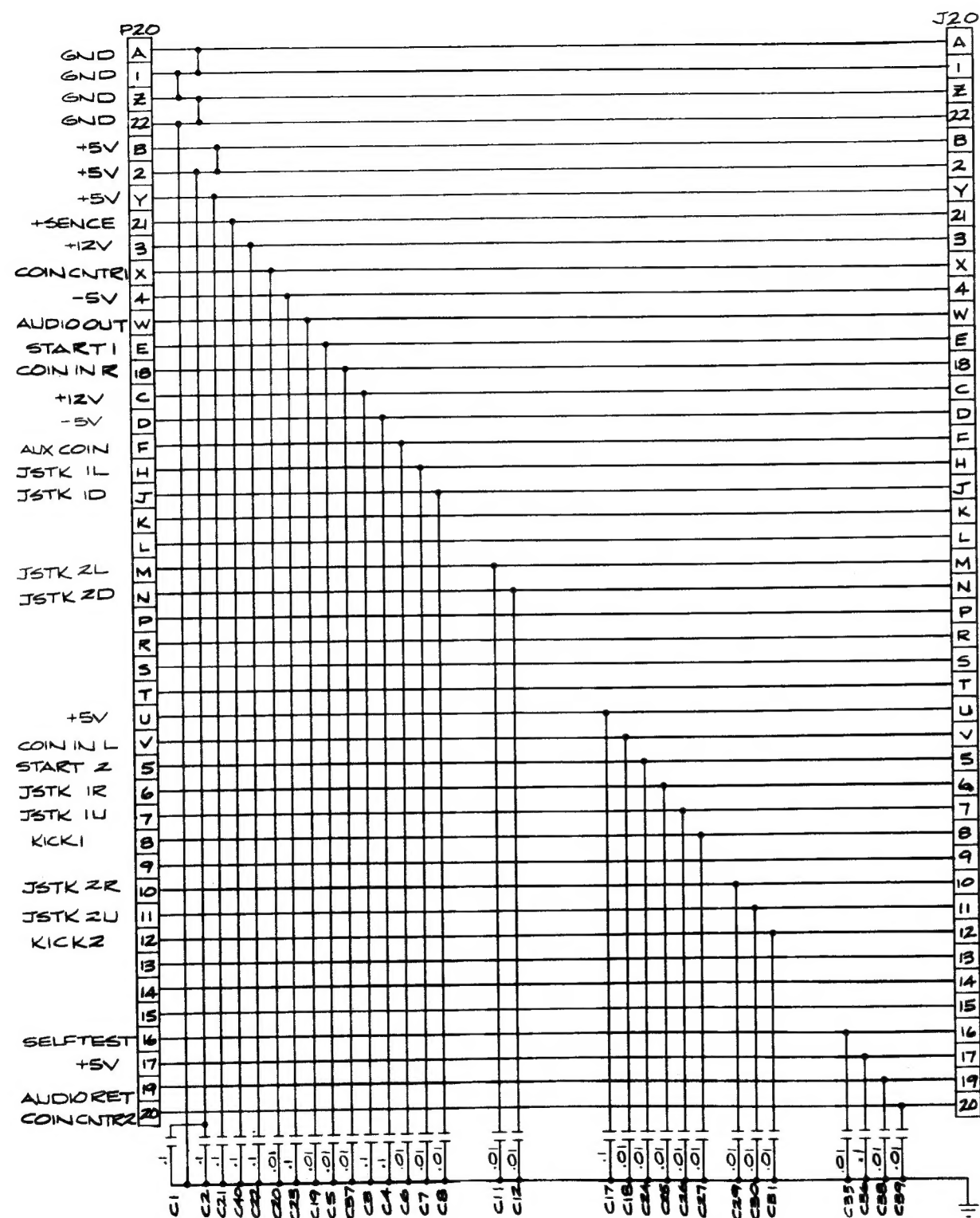
Video Output

The Video Output section of the circuit diagram shows a complex logic and driver stage. It includes multiple 7400-series logic ICs (IC117, IC119, IC120, IC188, IC189, IC190, IC192) and 7406 buffers. The circuit takes video signals (ARHF, ABHF, ABHF, AR, AG, BLNK, BK, BR, BG, BLNK) and drives three output channels (J2, L, K) through transistors TR6, TR5, and TR4. It also includes timing components like resistors (R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28) and capacitors (C15, C14, C13).

Arabian PCB Schematic Diagram



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Arabian EMI Shield PCB Schematic Diagram



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